

United States Department of Agriculture



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January 19, 2005

MINNESOTA BULLETIN NO. 260-5-17

SUBJECT: INF – MINNESOTA NRCS MARKETING NEWS RELEASE

Purpose. To provide a Marketing Team News Release prepared by Jeffrey Rypka.

Expiration Date. September 30, 2005.

Attached to this bulletin is a news release entitled *Snake River Project Phase III – Construction Update*. It was prepared for the NRCS Marketing Team by Jeffrey Rypka, Civil Engineer in the Thief River Area Office, and is intended for use by field offices. This release is the third in a series of monthly news releases sponsored by the Minnesota NRCS Marketing Team. Please feel free to adapt, as needed, and distribute as soon as possible to your local news outlets.

The State Office has distributed this news release to regional news outlets including AgriNews and other Minnesota media outlets.

Questions regarding the MN NRCS Marketing Team efforts should be directed to John Nicholson, Marketing Chair, and public information efforts should be directed to Julie MacSwain, Public Affairs Specialist.

WILLIAM HUNT
State Conservationist

Attachment

DIST: AO

(Attachment)

FOR IMMEDIATE RELEASE

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SNAKE RIVER PROJECT PHASE III - CONSTRUCTION UPDATE

THIEF RIVER FALLS, MN, Jan. 19, 2005 -- Construction of Phase III of the Snake River Flood Control Project began in August, 2004 and has continued into the winter. KGM Contractors from Angora, MN is the General Contractor and the Middle-Snake-Tamarac Rivers Watershed District is the Contracting Local Organization. Ron Adrian, Middle-Snake-Tamarac Rivers watershed district engineer, is serving as the Contracting Officer. Jeff Rypka is the Government Representative, and Brant Dallas and Doug Christianson are the Construction Inspectors on the project. The project cost for Phase III is just over \$3 million, and the project is scheduled to be substantially complete by next fall, with only some seeding to be completed in Spring 2006. There are two major components to Phase III of the project: a concrete diversion structure in the Snake River channel to divert floodwater from entering the City of Warren, and a floodway channel to carry diverted floodwater around the city.

Despite the start of construction late in the season, the work has progressed well. In the floodway portion of the project over 160,000 cubic yards of soil have been excavated, resulting in 4,000 feet of floodway being constructed. The floodway bottom is 50 feet wide and it averages 12 feet deep. The total length of the floodway for the entire project is over 4 miles. One component of the floodway that was completed this fall is a rock drop chute. The purpose of the drop chute is to maintain a stable slope in the upper and lower reaches of the floodway. The drop chute required 1,800 tons of rock bedding and 5,550 tons of granite riprap ranging in size from 15-38 inches. The rock was hauled in from a quarry near Roosevelt, MN, nearly 120 miles away. Since each truckload could only haul about 21 tons of rock, it took weeks to deliver all the rock to the site.

Construction has also begun on the diversion structure portion of the project. The first step was the construction of the Snake River temporary bypass channel, which was completed in December. The purpose of the bypass channel is to temporarily re-route the Snake River so that the diversion structure can be constructed in the existing river channel. The diversion structure is essentially a 180 foot long concrete dam with a 10- by 10-foot gated opening in the center, which allows normal flow of water through the river channel, and diverts excess flows into the floodway. Constructing the bypass channel in the freezing conditions was difficult because erosion control blanket needed to be installed on the completed slopes of the channel. This required the contractor to complete only as much excavation as could be covered with erosion control blanket each day, since once the ground froze overnight it was difficult to get the anchoring staples into the ground.

Working in and around the river is a sensitive issue that requires numerous permits. NRCS worked with DNR, MPCA, and the Army Corps of Engineers to help the watershed district get the permits needed for construction. NRCS will also help the watershed district with other requirements, such as stream monitoring after the project is complete. Stream monitoring is required by the DNR permit to see if there are negative effects on the river system that were caused by the construction of this project.

The technology being used on the project is interesting as well. The design of the project was done with AutoCAD, which allowed survey grade GPS equipment to be used for construction. First, the contractor uses large dozers and excavators to roughly excavate the floodway. Then the contractor can take advantage of the GPS capabilities of a smaller dozer for doing the finish work. NRCS provided the contractor with a computer file with the design information that the contractor uploaded into a GPS data collector. The contractor was then able to mount a GPS receiver on each side of the dozer blade and installed a computer in the dozer cab. The computer was tied into the hydraulic controls on the dozer, and the height of the dozer blade was automatically controlled. This greatly speeded the final grading of the floodway and reduced the amount of surveying and slope stakes needed. In addition, the accuracy of the final grade was much greater than usually obtained conventionally. Most areas were finished to within 0.05 feet of the design grade.



A view across the completed floodway prior to seeding.



A view of a completed portion of the floodway after seeding and mulching.

The excavator is putting the finishing touches on the rock chute. The chute is about 300 feet long, about 100 feet wide, and has a drop of 7.5 feet.



Installation of coconut and straw erosion control blanket in the Snake River bypass channel.



A view of the completed bypass channel.